

T H E  
**G A L L E R Y**  
C O L L E C T I O N

## INSTALLER GUIDE

# Model 750M Heat Engine

(GC No. 32-032-58)

INSET LIVE FUEL EFFECT GAS FIRE



**THIS APPLIANCE IS FOR USE WITH NATURAL GAS (G20).  
WHEN CONVERTED USING CONVERSION KIT NO. 0595221 THIS  
APPLIANCE IS FOR USE WITH PROPANE GAS (G31).  
THIS APPLIANCE IS SUITABLE ONLY FOR INSTALLATION IN THE UNITED  
KINGDOM (GB) AND THE REPUBLIC OF IRELAND (IE).**

For technical advice firstly contact your retailer. If further advice is required then call  
0161703 8157 for The Midlands and North or  
01462 813 138 for The South.

**INSTALLER: Please leave this guide with the owner**

# INSTALLER GUIDE

## **Safety First.**

This gas fire is CE Approved and designed to meet the appropriate British Standards and Safety Marks.



## **Quality and Excellence.**

This fire has been manufactured to the highest standards of quality and excellence and was manufactured under a BS EN ISO 9001 quality system accepted by the British Standards Institute.



## **The Highest Standards**

The manufacturer is a member of the Society of British Gas Industries which works to ensure high standards of safety, quality and performance.



## **Careful Installation**

The manufacturer is a CORGI registered company. This gas fire must be installed by a competent CORGI Registered Installer in accordance with our Installer Guide and should not be fitted directly on to a carpet.

Baxi Fires Division, Erdington, Birmingham B24 9QP

Because our policy is one of constant development and improvement, details may vary slightly from those given in this publication

# INSTALLER GUIDE

## CONTENTS

<b><u>Section</u></b>	<b><u>Heading</u></b>	<b><u>Page</u></b>
<b>1.</b>	<b>SAFETY</b>	4
<b>2.</b>	<b>APPLIANCE DATA</b>	4
<b>3.</b>	<b>GENERAL INSTALLATION REQUIREMENTS</b>	5
<b>4.</b>	<b>PACK CONTENTS</b>	11
<b>5.</b>	<b>FIREPLACE CHECK</b>	12
<b>6.</b>	<b>IGNITION CHECK</b>	14
<b>7.</b>	<b>GAS SUPPLY CONNECTION</b>	14
<b>8.</b>	<b>PREPARING APPLIANCE FOR INSTALLATION</b>	15
	8.1 Appliance preparation.	15
	8.2 Fitting the foam seal.	15
	8.3 The flue restrictor.	16
<b>9.</b>	<b>FIREBOX INSTALLATION</b>	16
<b>10.</b>	<b>BURNER INSTALLATION</b>	19
<b>11.</b>	<b>FITTING THE CERAMIC FUEL EFFECT</b>	20
<b>12.</b>	<b>FITTING THE FASCIA</b>	20
<b>13.</b>	<b>FULL OPERATING CHECKS</b>	21
<b>14.</b>	<b>SPILLAGE &amp; FLAME SUPERVISION CHECKS</b>	22
<b>15.</b>	<b>FINAL REVIEW</b>	23
<b>16.</b>	<b>SERVICING &amp; PARTS REPLACEMENT</b>	24
	16.1 Checking the aeration setting of the burner.	25
	16.2 To remove the burner unit.	25
	16.3 To remove the pilot unit.	26
	16.4 To remove the gas valve.	26
	16.5 To replace the burner.	27
	16.6 To remove the main burner injector.	27
	16.7 To remove the fascia.	27
	16.8 To remove the appliance from the fireplace.	27

# INSTALLER GUIDE

## 1. SAFETY

### Installer

Before continuing any further with the installation of this appliance please read the following guide to manual handling

- The lifting weight of this heat engine and convection box is 7.4 kg.
- One person should be sufficient to lift the fire. If for any reason this weight is considered too heavy then obtain assistance.
- When lifting always keep your back straight. Bend your legs and not your back.
- Avoid twisting at the waist. It is better to reposition your feet.
- Avoid upper body/top heavy bending. Do not lean forward or sideways whilst handling the fire.
- Always grip with the palm of the hand. Do not use the tips of fingers for support.
- Always keep the fire as close to the body as possible. This will minimise the cantilever action.
- Use gloves to provide additional grip.
- Always use assistance if required.

## 2. APPLIANCE DATA

**This product uses fuel effect pieces and a burner compartment rear wall containing Refractory Ceramic Fibres (RCF), which are man-made vitreous silicate fibres. Excessive exposure to these materials may cause irritation to eyes, skin and respiratory tract. Consequently, it is important to take care when handling these articles to ensure that the release of dust is kept to a minimum. To ensure that the release of fibres from these RCF articles is kept to a minimum, during installation and servicing we recommend that you use a HEPA filtered vacuum to remove any dust and soot accumulated in and around the fire before and after working on the fire. When replacing these articles we recommend that the replaced items are not broken up, but are sealed within a heavy duty polythene bag, clearly labelled as RCF waste. This is not classified as “hazardous waste” and may be disposed of at a tipping site licensed for the disposal of industrial waste. Protective clothing is not required when handling these articles, but we recommend you follow the normal hygiene rules of not smoking, eating or drinking in the work area and always wash your hands before eating or drinking.**

**This appliance does not contain any component manufactured from asbestos or asbestos related products.**

# INSTALLER GUIDE

Gas	Natural (G20)	Propane (G31) *
Inlet Pressure	20mbar	37mbar
Input - Max. (Gross)	6.0kW (20,500Btu/h)	6.1kW (20,800Btu/h)
Input - Min. (Gross)	2.3kW (7,850Btu/h)	3.8kW (12,965Btu/h)
Inlet Test Pressure (Cold)	20.0 ± 1.0mbar (8.0 ± 0.4in w.g.)	37.0 ± 1.0 mbar (14.85 ± 0.4in w.g.)
Gas Connection	8mm pipe	8mm pipe
Burner Injector	Stereomatic Cat 82 - 069	Stereomatic Size 128
Pilot & Atmosphere Sensing Device	Copreci Ref. O.D.S 21500/166	Copreci Ref. O.D.S 21500/166 Fitted with RBM 180 - 02 injector
Ignition	Piezo Electric. Integral with Gas Tap	Piezo Electric. Integral with Gas Tap
Aeration	See section 16.1	Non-adjustable

\* When converted using Kit 0595221

The appliance data label is located on a plate at the base of the fire. This can be seen by removing the firefront / firefront casting and ash pan.

## 3. GENERAL INSTALLATION REQUIREMENTS

**3.1** The installation must be in accordance with these instructions.

For the user's protection, in the United Kingdom it is the law that all gas appliances are installed by competent persons in accordance with the current edition of the Gas Safety (Installation and Use) Regulations. Failure to install the appliance correctly could lead to prosecution. The Council for the Registration of Gas Installers (CORGI) requires its members to work to recognised standards.

In the United Kingdom the installation must also be in accordance with:

All the relevant parts of local regulations.

All relevant codes of practice.

The relevant parts of the current editions of the following British Standards: -

BS 715                      BS 1251                      BS 1289 Part 1      BS EN 1806

BS 4543 Part 2      BS 5440 Part 1      BS 5440 Part 2      BS 5871 Part 1

BS 6461 Part 1      BS 6891

In England and Wales, the current edition of the Building Regulations issued by the Department of the Environment and the Welsh Office

In Scotland, the current edition of the Building Standards (Scotland) Regulations issued by the Scottish Executive.

In Northern Ireland, the current edition of the Building regulations (Northern Ireland)

# INSTALLER GUIDE

issued by the Department of the Environment for Northern Ireland.

In the republic of Ireland the installation must be carried out by a competent person and installed in accordance with:

- a) The current edition of IS 813 “Domestic gas installations”
- b) All relevant national and local rules in force.
- c) The current building regulations

Where no specific instructions are given, reference should be made to the relevant British Standard Code of Practice.

**3.2** In the United Kingdom, as supplied, this appliance can be installed in the following situations: -

**3.2.1** A masonry chimney with a minimum diameter of 175mm (7”) free from any obstruction, and with any damper or restrictor plate in the chimney removed or secured, and having a minimum effective flue height of 3m (10ft). A masonry chimney having a correctly installed flue liner to BS715 and with a minimum flue diameter of 125mm is also acceptable. Chair brick removal may not be required providing at least 50mm clearance is available from the flue outlet to any fireplace component.

### **3.2.1.1** ‘Hole-in-the-wall’ Installations

- It is recommended that a hearth should be installed as in figure 1.
- If a hearth is not fitted, the fire must be installed so that the distance from the base of the fireplace opening in the wall to the finished floor level is at least 72mm. The minimum shelf height will have to be taken from the base of the fireplace opening.

**3.2.2** To a fireplace incorporating a metal flue box conforming to BS715 with a minimum internal depth of 165mm.

Incombustible mineral wool insulation of not less than 50mm thickness must be applied to the top surface of the firebox (See figure 2) and it must stand on a non-combustible hearth (See figure 1).

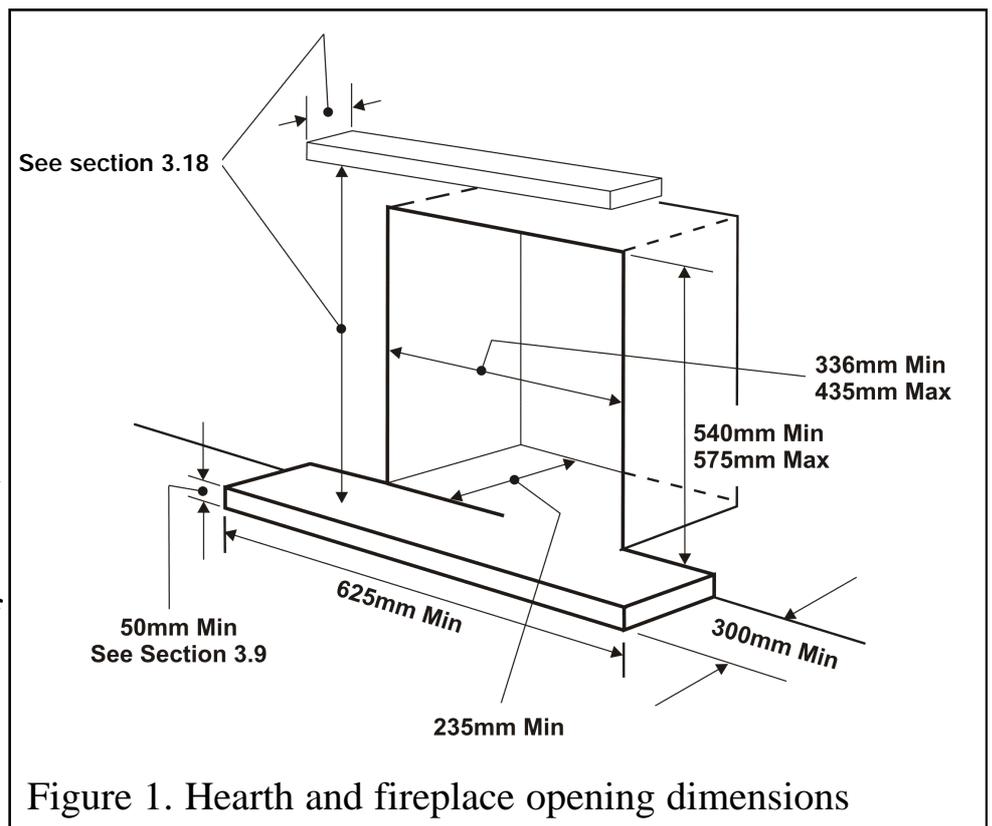


Figure 1. Hearth and fireplace opening dimensions

# INSTALLER GUIDE

**3.2.3** (See figure 3). To a fireplace that has a precast concrete or clay flue block system conforming to BS1289 or BS EN 1806. The appliance is suitable for installations conforming to older versions of BS1289 as well as the current edition. The flue blocks must have a minimum width not less than 63mm and a cross-sectional area not less than 13,000mm<sup>2</sup>. Older editions of BS1289 required a cross-sectional area of 13,000mm<sup>2</sup>. The current revision of the standard requires 16,500mm<sup>2</sup>. This appliance is suitable in both cases. The total depth of the opening measured from the finished front of the fireplace (Including plaster, surround etc.) must be as below:

- If the width at the rear of the precast flue starter blocks is 300mm or greater the depth of the opening is to be not less than 138mm. Under these conditions the eyebolts will need to be located as close to the sides of the starter blocks as possible.
  - If the width at the rear of the precast flue starter blocks is less than 300mm then an additional 16mm of depth will be required to accommodate the eye bolts.
- Therefore if the starter blocks are less than 300mm wide the minimum depth of the opening will be not less than 154mm.

The current versions of BS1289 and BS EN 1806 recommend that there should be an air space or insulation between the flue blocks and the plaster because heat transfer may cause cracking on directly

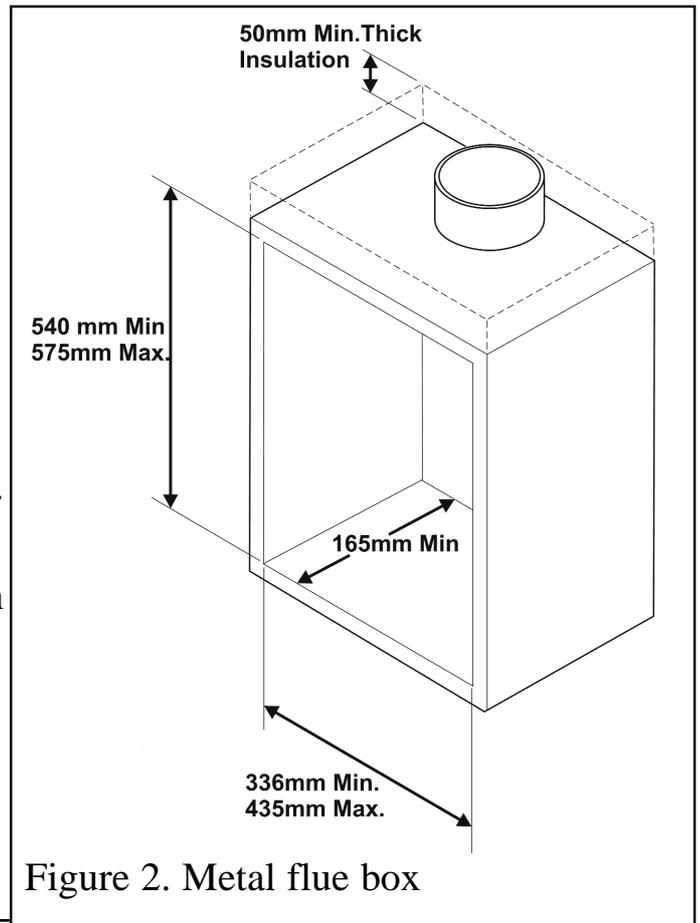


Figure 2. Metal flue box

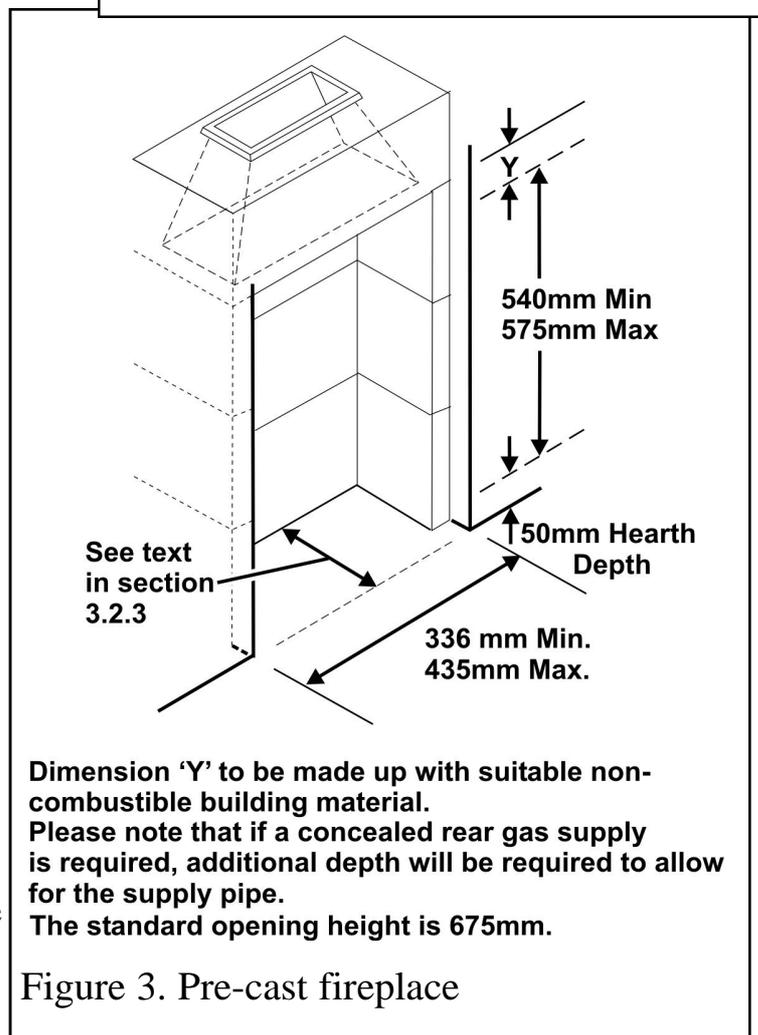


Figure 3. Pre-cast fireplace

# INSTALLER GUIDE

plastered flues. However, generally this appliance is suitable for installations under all circumstances unless there is a history of cracking problems. Remember that faults such as cracking may be caused by poorly built and restrictive flues, e.g. mortar extrusions, too many bends, flue heights below three metres, restrictive terminations, etc.

**3.2.4** If the fireplace opening is greater than the acceptable dimensions given in this guide, do not use the back of a fire surround or marble to reduce the opening. This may cause cracking of the surround back or marble.

**3.3** The following flues are suitable:

- 225mm x 225mm conventional brick flue.

If a flue liner is used, it must be a minimum of 125mm diameter. The liner must be sealed to the surrounding area above the fireplace opening and to the top of the chimney. An approved terminal must be fitted.

- A properly constructed precast flue conforming to B.S 1289 or BS EN 1806.
- A flue pipe with a minimum diameter of 127mm. See B.S 6461 Part 1 for suitable materials. Metal flue pipes must comply with B.S 715.

**3.3.1** The minimum effective height of the flue must be 3m.

**3.3.2** The flue must be clear of any obstruction and its base must be clear of debris.

**3.3.3** The flue must be completely sealed so that combustion products do not come into contact with combustible materials outside the chimney.

**3.3.4** The flue must serve only one fireplace.

**3.4** The flue must conform to BS 5440: Part 1 in design and installation.

The flue, measured from the bottom of the fireplace opening to the bottom of the terminal, shall be not less than 3m in actual vertical height. When calculated in accordance with BS 5440: Part 1 Annex A, the minimum **equivalent** height of the flue shall be 2.0m of 125mm dia. flue pipe.

**3.5** The flue must not be used for any other appliance or application.

**3.6** Any chimney dampers or restrictors should be removed. If removal is not possible they must be fixed in the open position.

**3.7** If the appliance is intended to be installed to a chimney, which was previously used for solid fuel, the flue must be swept clean prior to installation. All flues should be inspected for soundness and freedom from blockages.

**3.8** If the fireplace opening is an underfloor draught type, it must be sealed to stop any draughts.

# INSTALLER GUIDE

**3.9** The appliance must be mounted behind a non-combustible hearth (N.B. conglomerate marble hearths are considered as non-combustible). The appliance can be fitted to a purpose made proprietary class “O”- 150°C surround. The hearth material must be at least 12mm thick. The periphery of the hearth (or fender) should be at least 50mm above floor level to discourage the placing of carpets or rugs over it.

The appliance must not stand on combustible materials or carpets (See figure 1).

**3.10** The front face of the fireplace should be reasonably flat over the area covered by the convector box top and side flange seals to ensure good sealing. These faces should be made good if necessary. The fireplace floor should be reasonably flat to ensure that a good seal with the convector box can be made.

**3.11** Note that soft wall coverings (e.g. embossed vinyl, etc.) are easily affected by heat. They may scorch or become discoloured when close to a heating appliance. Please bear this in mind when installing.

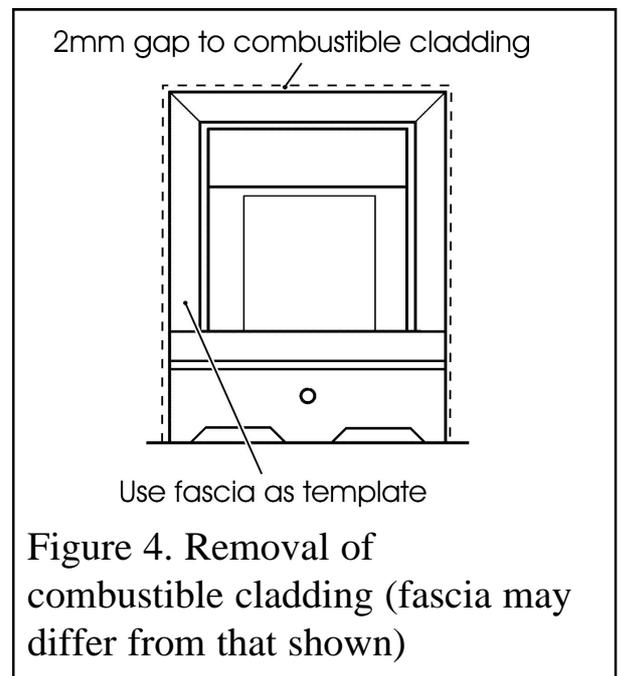
**3.12** The appliance must not be installed in any room, which contains a bath, or shower or where steam is regularly present.

**3.13** An extractor fan may only be used in the same room as this appliance, or in any area from which ventilation for the appliance is taken, if it does not affect the safe performance of the appliance. Note the spillage test requirements detailed further on in this manual. If the fan is likely to affect the appliance, the appliance must not be installed unless the fan is permanently disconnected.

**3.14** Normal adventitious ventilation is usually sufficient to satisfy the ventilation requirements of this appliance. In GB reference should be made to BS 5871 Part 2 and in IE reference should be made to the current edition of IS 813 “Domestic gas Installations” which makes clear the conditions that must be met to demonstrate that sufficient ventilation is available.

**3.15** Propane gas appliances must not be installed in a room, which is built entirely below ground level (See BS 5871 Pt2).

**3.16** If the appliance is to be fitted against a wall with combustible cladding, the cladding must be removed from the area covered by the fascia. The cladding must also not touch the fascia (See figure



# INSTALLER GUIDE

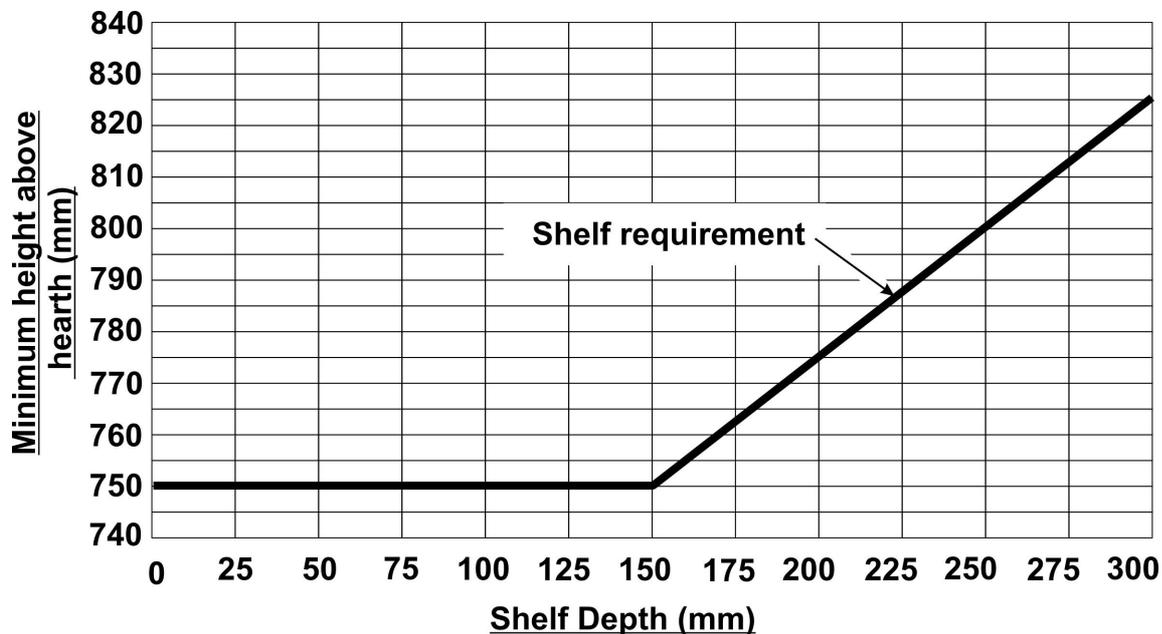
4). We suggest that the actual fascia is used as a template to mark the area for combustible cladding removal and that this area is increased by at least 2mm all round.

**3.17** The minimum allowable distance from the outside of the fascia to a corner wall having combustible material or any other combustible surface which projects beyond the front of the appliance is 100mm.

A 10mm access clearance from a non-combustible surface is necessary at both sides.

**3.18** The minimum height from the top surface of the hearth to the underside of any shelf made from wood or other combustible materials is detailed below.

- For a shelf up to 150mm deep: Minimum height = 750mm.
- For a shelf deeper than 150mm: 750mm + 12.5mm for every 25mm depth over 150mm (See Graph 1).



Graph 1. Combustible shelf clearances

**3.19** Proprietary terminals must comply with BS 715 or BS 1289. Any terminal or termination must be positioned in accordance with BS 5440 Part 1 to ensure that the products of combustion can be safely dispersed into the outside atmosphere. Where the appliance is connected to an unlined brick chimney it is generally unnecessary for the chimney pot to be replaced or for a terminal to be fitted unless the flue has a diameter smaller than 170mm.

**3.20** The appliance is fitted with an A.S.D (Atmosphere sensing device). If the appliance closes down after a period of operation for no apparent reason, the consumer should be informed to stop using the appliance until the installation and appliance have been thoroughly checked. The A.S.D will shut the appliance down if an unacceptable amount of harmful products of combustion accumulate. Under no circumstances should

# INSTALLER GUIDE

the A.S.D be altered or bypassed in any way. Only a genuine manufacturers replacement part should be fitted. The individual A.S.D components are not replaceable.

**3.21** A fire guard complying with BS 8423 should be fitted for the protection of young children, the elderly, or the infirm.

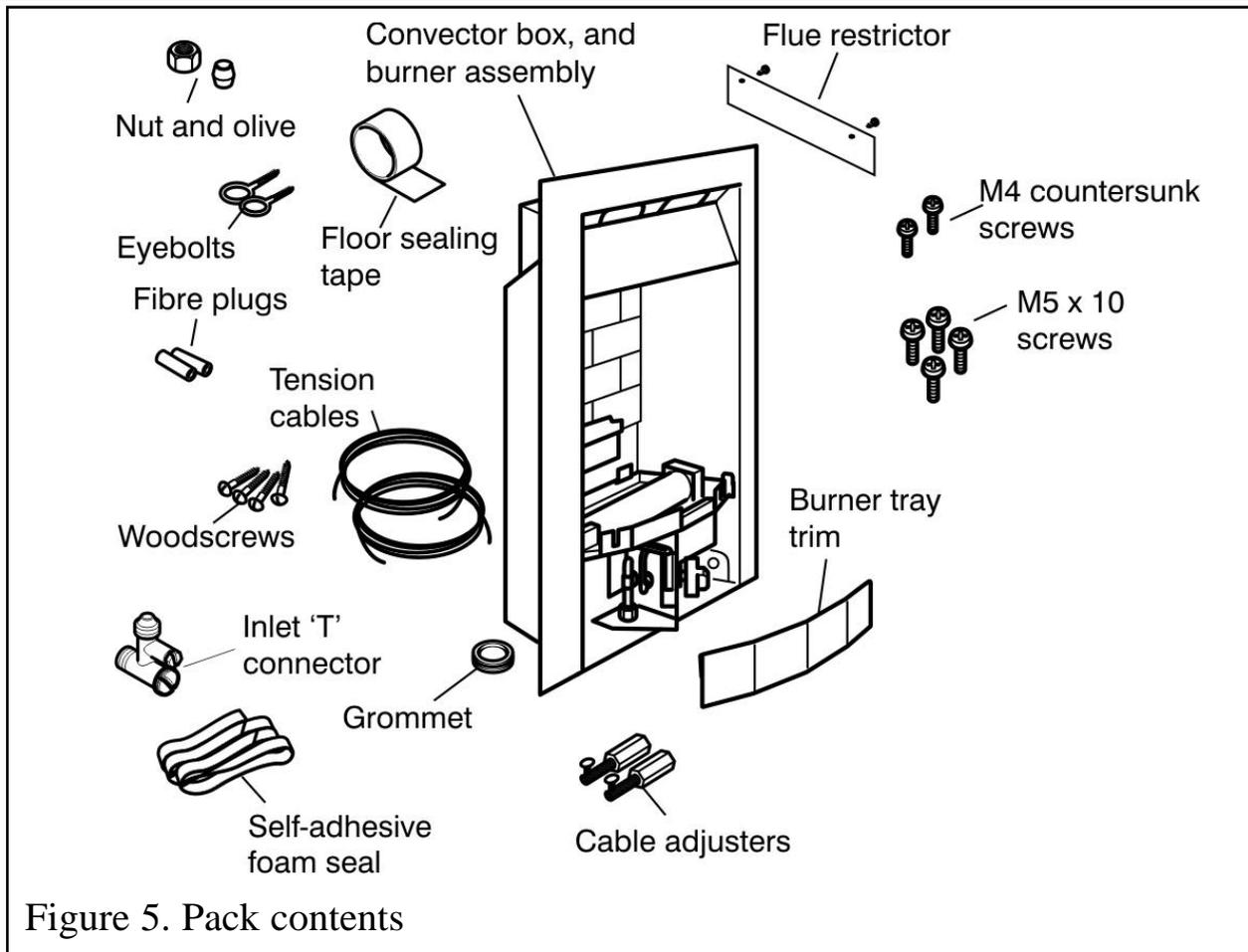
## 4. PACK CONTENTS

(See figure 5)

- 1 Convector box and burner assembly
- 1 Literature Pack
- 1 Loose parts pack including: -
  - 1 Burner tray trim
  - 1 Length of self-adhesive foam seal
- 2 Tension cables
- 2 Cable adjusters
- 1 Flue restrictor with 2 securing screws
- 2 Eyebolts
- 2 Fibre plugs
- 1 Strip of floor sealing tape
- 1 Nut and olive for 8mm inlet pipe
- 1 Inlet "T" connector including pressure test point
- 1 Grommet for rear of convector box.
- 1 Ceramic fuel effect (Not shown)
- 2 M4 countersunk screws (Securing infill panels to fascia)
- 4 M5 x 10 screws (Securing infill panels to fascia)

Remove all the items carefully to prevent damage. Take special care when handling the ceramic components. Some items may be contained in the packaging fitments - Examine the packaging carefully before discarding. Check that all the items are present and undamaged.

# INSTALLER GUIDE



## 5. FIREPLACE CHECK

### 5.1 Fireplace check.

#### 5.1.1 Fireplace size

The fireplace must comply with the requirements described in section 3.2. This may entail removing the fireback and infill material behind the fireback.

#### 5.1.2 Fireplace general condition

The fireplace floor should be reasonably flat to ensure that the convector box can be installed without it rocking and so that a good seal can be made at the bottom front of the box. The front face of the fireplace should be reasonably flat over the area covered by the convector box top and side flange seals to ensure good sealing. These faces should be made good if necessary. If the appliance is to be fitted against a wall with combustible cladding, the cladding must be removed from the area covered by the fascia. The cladding must also not touch the fascia (See figure 4). We suggest that the actual fascia is used as a template to mark the area for combustible cladding removal and that this area is increased by at least 2mm all round.

#### 5.1.3 Soundness for appliance attachment

Two primary methods of retaining the appliance are provided: -

- 1) By fixing to the fireplace front surround.
- 2) Using concealed tension cables fixed to the rear of the fireplace opening together

# INSTALLER GUIDE

with secondary fixing to the fireplace floor.

The methods are detailed in section 9 of this manual. Before selecting the retention method, consult with the customer. Method 2 is provided for instances where drilling holes in the front surface of the fireplace surround is unacceptable to the customer or otherwise impractical. *N.B. It is unwise to attempt to drill into marble without the proper tools and equipment.*

If method 1 is chosen, make sure that the front surround area is sound enough to take the fibre plugs and woodscrews. If necessary, make sound with a suitable cement.

If method 2 is chosen, make sure that the areas at the back is sound enough to take the eyebolts. If these areas have deteriorated due to prolonged use, they should be made sound with a suitable cement.

## **5.1.4. Installations using a metal flue box**

The whole of the top surface of the metal flue box must be covered with a minimum 50mm layer of mineral wool or equivalent insulation (See figure 2).

## **5.2 Fireplace flue pull.**

Close all doors and windows in the room in which the appliance is to be installed. After confirming with a match that smoke is drawn into the flue, light a 13 gram smoke pellet and check that there is a definite flow through the flue. Verify outside that the smoke exits from one terminal only and that the termination is suitable. Observe where possible, upstairs rooms and loft spaces for signs of escaping smoke indicating a defective flue. If there is not a definite flow warm the flue for a few minutes and repeat the smoke pellet test. If there is still no definite flow the flue may need remedial work – **Do not fit the appliance until there is a definite flow through the flue.**

# INSTALLER GUIDE

## 6. IGNITION CHECK

Before attempting to install, it is worth checking that the ignition system performs satisfactorily.

Set the control knob to the 'OFF' position.

Depress the control knob and rotate it anticlockwise to the pilot ignition position. A 'click' will be heard as the integral piezo operates. A spark should be seen between the electrode and pilot tip. If there is no spark check the following: -

- Ensure that the electrode lead is connected to the terminal at the base of the electrode.
- If the above is correct, check for damage to the electrode lead.

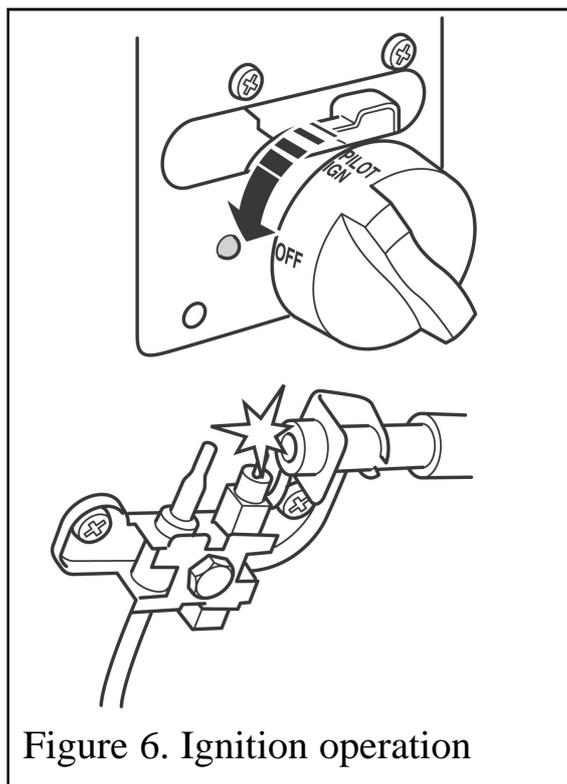


Figure 6. Ignition operation

## 7. GAS SUPPLY CONNECTION

A nut and olive are provided for an 8mm pipe inlet connection to the inlet 'T' connector at the bottom front of the appliance. The inlet 'T' connector can be rotated to allow a connection from any direction and includes a valve for isolating the gas supply and a pressure test point.

The supply pipe must be rigid material. Flexible pipe must not be used.

### **Concealed supply pipe connection.**

If a concealed connection from inside the fireplace is required then, **before the appliance is fitted into the fireplace** it will be necessary to extend the supply line so that it will project through the hole in the back of the convector box and run to the inlet 'T' connector at the front. The pipe run from the supply line up to the rear opening in the convector box must be kept away from the area which will be taken by the convector box when it is installed. Note that the centre of the appliance inlet 'T' connector is 25mm above the fireplace floor. The inlet 'T' connector should be fitted to the supply pipe at this stage.

# INSTALLER GUIDE

## 8. PREPARING APPLIANCE FOR INSTALLATION

### 8.1 Appliance preparation.

1. Remove any transit tape and packing and inspect for any evidence of mishandling which might affect the performance. Each unit is flame tested before it leaves the factory and as a result there may be slight discolouration around the burner ports.
2. Detach the burner unit from the convector box by removing two screws (See figure 7). Lift the burner unit clear.

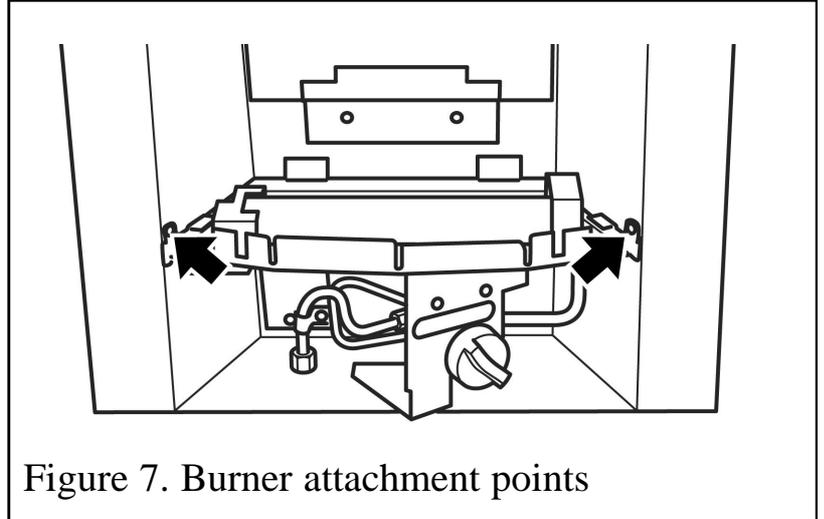


Figure 7. Burner attachment points

### IMPORTANT

**Before continuing with the installation of this gas fire the aeration setting on the burner must be checked. The aeration is factory set for use with a ceramic pebble fuel effect (See section 16.1)**

3. It is important that the grommet supplied in the loose parts pack is fitted to the hole in the rear of the convector box.

### 8.2 Fitting the foam seal.

#### 8.2.1 For models with fascia that are located to the front of the convection box

**flanges:** There is a length of self adhesive foam seal supplied with the fire. This will need to be fitted to the outer rear edges of the side and top flanges of the convector box. Cut the foam seal to the required length. Be careful not to stretch the seal when measuring. Remove the protective backing from the foam seal and fit this to the rear of the convector box flange (See figure 8).

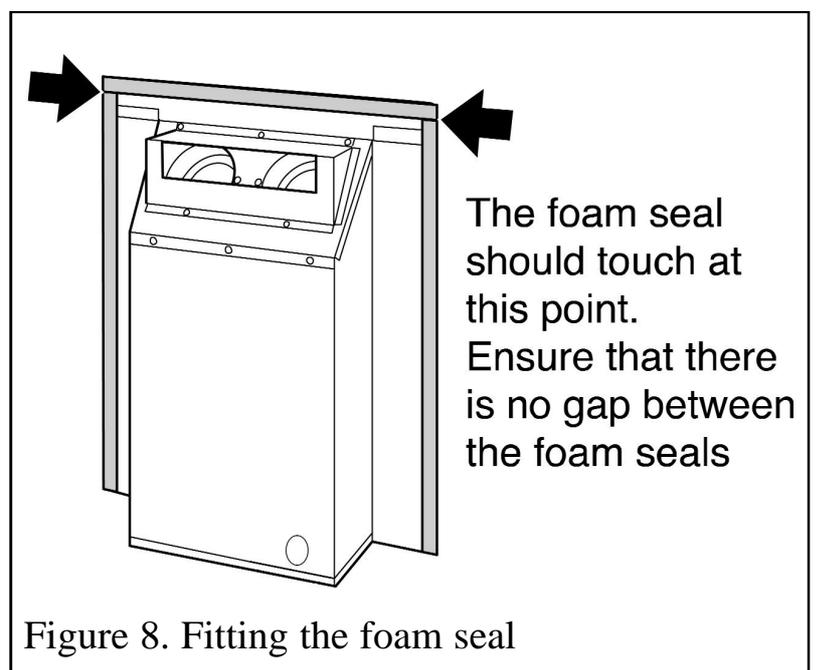


Figure 8. Fitting the foam seal

# INSTALLER GUIDE

## 8.2.2 For models with fascia that slide onto the convection box flanges:

There is a length of self adhesive foam seal supplied with the fire. This will need to be fitted to the outer rear edges of the side and top flanges of the convector box. This will be fitted over the flanges of the fascia. **It is therefore important to ensure that the fascia is positioned correctly before fitting the foam seal.** (See fascia fitting guide supplied with the fascia). Cut the foam seal to the required length. Be careful not to stretch the seal when measuring. Remove the protective backing from the foam seal and fit this to the rear of the convector box flange (See figure 8).

## 8.3 The flue restrictor.

This appliance is supplied with a flue restrictor for use where the flue draught is excessive. **The restrictor must not be fitted where a precast flue or a 125mm flue liner is used.** For flue liners greater than 125mm and all other installations the restrictor should be fitted. There may however, be certain exceptional circumstances where fitting the restrictor causes the fire to fail the spillage test. In such cases the restrictor will have to be removed. After removal conduct the spillage check again.

Fit the restrictor as shown in figure 9 using the two screws provided.

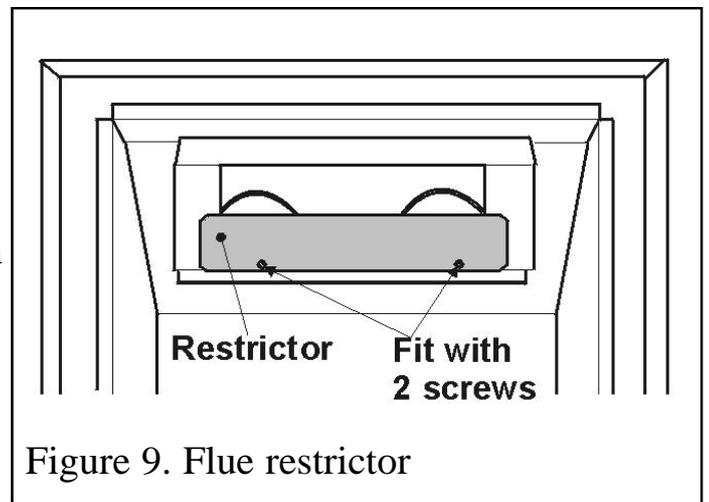


Figure 9. Flue restrictor

# 9. FIREBOX INSTALLATION

**9.1 Method 1- Front fixing to fireplace surround.**  
**(This method of fixing may not be suitable for fires with fascia that slide onto the convection box flanges. The screw heads may prevent fascia fitting).**

1. Make sure that the fireplace front surround area is sound enough to take the fibre plugs and woodscrews. If necessary, make sound with a suitable cement.
2. Place the convection box centrally in the fireplace in the position in which it is to be permanently installed. If a concealed connection is being used, insert the convection box into the fireplace feeding the supply pipe through the pierced hole in the grommet.
3. Mark the fireplace front surround through the four fixing holes in the side flanges of the hotbox (See figure 10).

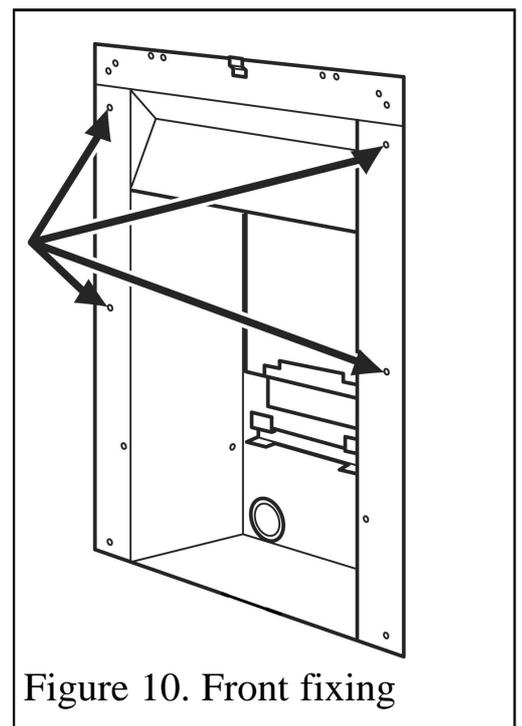


Figure 10. Front fixing

# INSTALLER GUIDE

4. Remove the hotbox. Drill four holes in the fireplace front surround at the marked positions using a no.12 masonry drill.
5. Insert a fibre plug into each hole.
6. Place the convection box back in position in the fireplace.
7. Fit a woodscrew through each hole in the convection box flanges and tighten to seal the box to the fireplace surround.

## 9.2 Method 2 - Cable retention.

1. Make sure that the relevant areas at the fireplace back are sound enough to take the eyebolts. If these areas have deteriorated due to prolonged use they should be made sound with a suitable cement.
2. Drill two holes in the rear wall of the fireplace for the eyebolt plugs. The holes should be drilled within the range of positions shown in figure 11 using a no.12 masonry drill. The holes should be equidistant each side of the centre line of the fireplace to ensure that the appliance finishes centrally in the opening when tension is applied to the cables.
3. Insert a fibre plug into each hole. Use the fibre plugs supplied with this appliance - **Never use plastic plugs instead of the fibre plugs supplied.** Screw the eyebolts into the plugs. Make sure that the bolts are secure.
4. Place the convector box unit close to the fireplace but allow sufficient access into the fireplace opening so that the cables can be threaded through the eyebolts and returned through the back of the convector box. If a concealed connection is being used, insert the convector box into the fireplace feeding the supply pipe through the pierced hole in the rear seal.

5. The rear of the convection box has a slot and hole each side of the outlet opening. Assemble one end of the cable to the top of the fire by passing it through the small round hole and locking by positioning the cable in the adjacent slot (See figure 12).

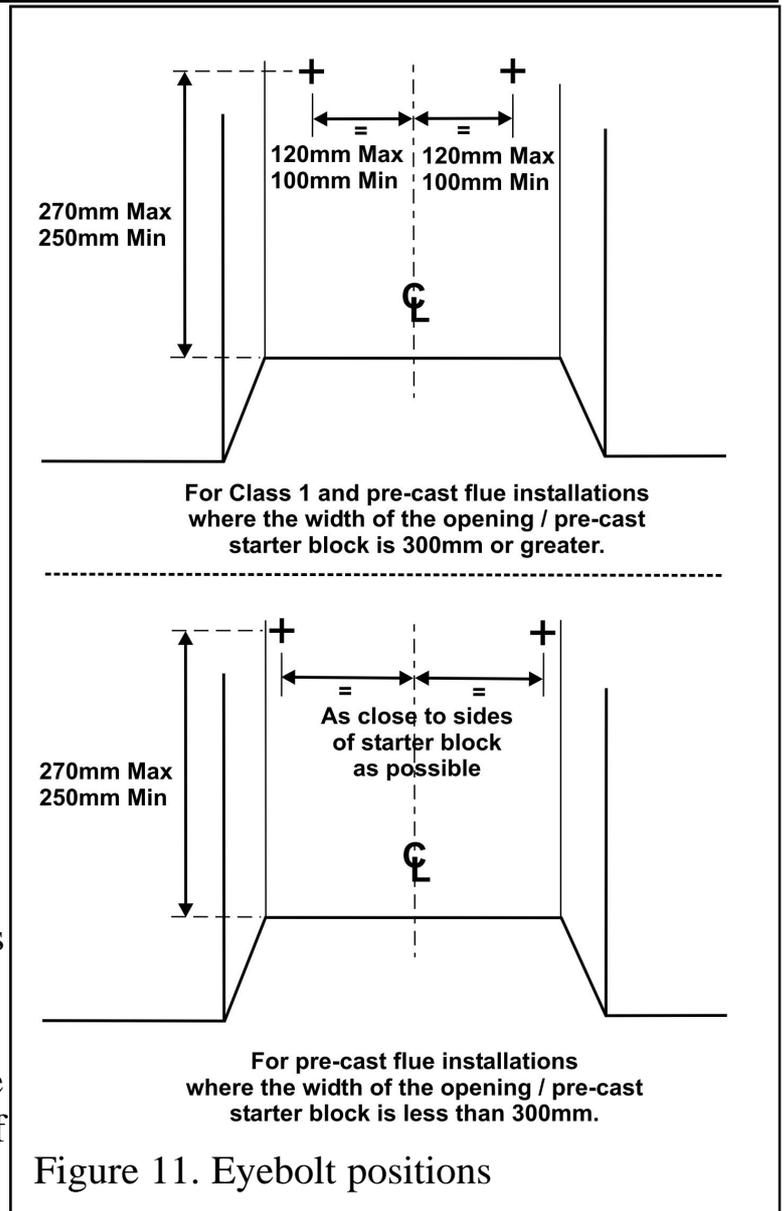
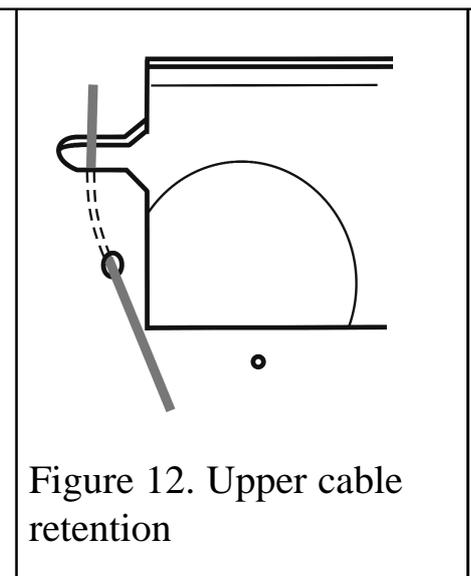


Figure 11. Eyebolt positions



# INSTALLER GUIDE

Give the cables a pull so that they grip.

**6.** Thread the cables through the eyebolts in the rear wall. Return the cables through the holes near the bottom corners of the convection box back panel (See figure 13).

**7.** Place the convection box fully back into the fireplace opening so that it is sealed against the fireplace front surround.

**8.** Fit a cable retainer over the bottom end of each cable.

**9.** Pull each cable taut. Push the cable retainers hard up against the back panel. Tighten the screws in the retainers so that they clamp the cables in position. Apply tension to the cables by turning the hexagonal adjusters by hand (See figure 14).

**10.** Inspect the installation of the convection box against the fireplace surround. If the convection box is aligned squarely and the sealing is satisfactory, fully tighten the cable retainers.

**11.** If the convection box is not correctly aligned, release the tension on the cables by slackening the screws and turning the hexagonal adjusters fully anticlockwise. The convection box should then automatically realign itself. Pull each cable taut

again and push the cable retainers back against the back panel. Again, tighten the screws in the retainers and apply tension to the cables by turning the hexagonal adjusters clockwise as far as possible.

**12.** Push the free length of the cables inside the convection box so that they are available to allow easy removal and refitting of the appliance during subsequent service calls.

## 9.3 Floor sealing (All Installations).

Using the floor sealing tape supplied, seal the bottom of the convector box to the fireplace and hearth floor. Run the tape over the centre bracket (See figure 15).

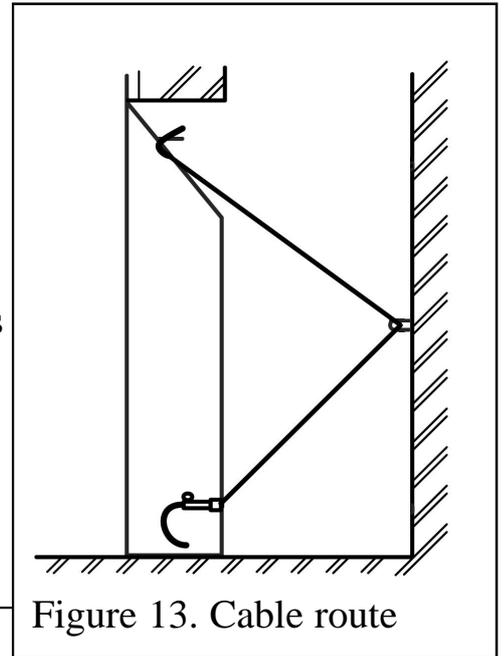


Figure 13. Cable route

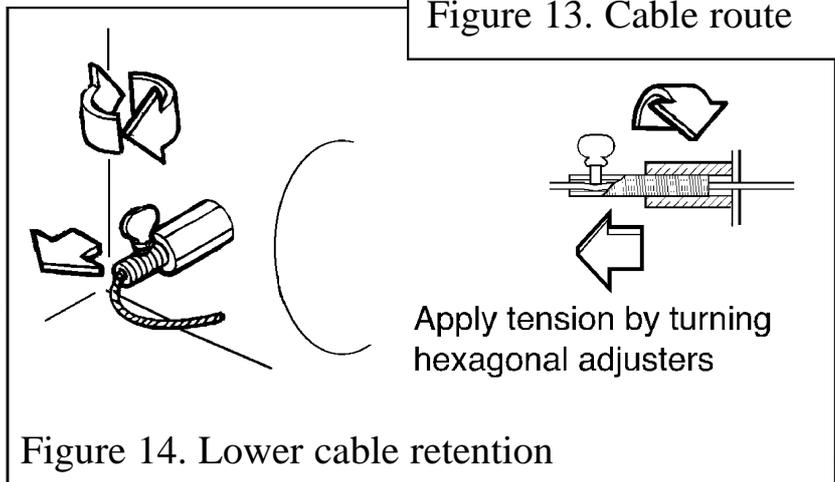


Figure 14. Lower cable retention

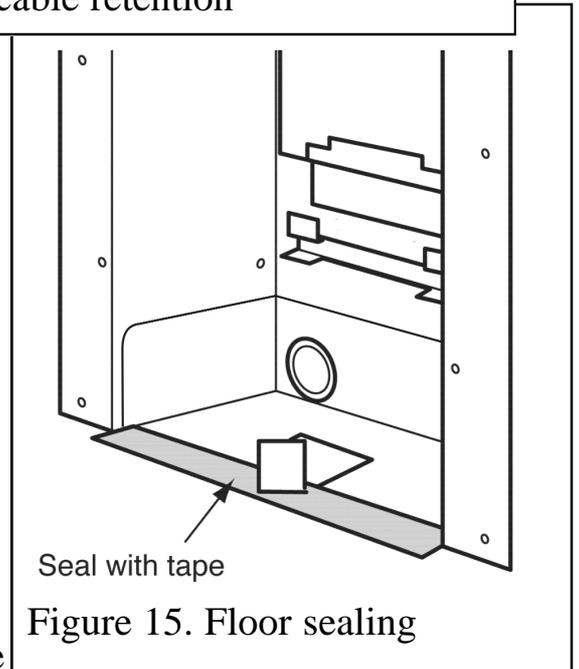


Figure 15. Floor sealing

## 10. BURNER INSTALLATION

### 10.1 Burner and supply pipe installation.

1. Refit the burner unit to the convector box using the two screws removed previously
2. Connect the supply line to the appliance.
3. If closed, open the isolating valve at the inlet 'T' connector.
4. Turn on the gas supply and pressure check the installation pipework for gas soundness. In the United Kingdom check in accordance with the current edition of BS 6891. In the Republic of Ireland refer to the current edition of I.S. 813 "Domestic gas installations".

### 10.2 The burner.

#### 10.2.1 Lighting the burner.

Some burner operations can be checked at this stage. Checking now will mean that less disassembly will be required if any problems are found. ***A full check should still be made, however, after final installation.***

1. Depress the control knob and rotate it anticlockwise to the pilot ignition position. A 'click' will be heard as the integral piezo operates. A spark should be seen between the electrode and pilot tip.
2. Turn the control knob clockwise to the 'Off' position. Repeat this operation until a flame appears at the pilot. There may be a delay before the pilot lights due to air being purged from the system. When a flame appears at the pilot keep the control knob depressed and hold the pilot ignition position for five seconds. When the control knob is released the pilot flame should remain lit.

#### 10.2.2 Operating the burner.

1. When the pilot burner is operating properly, gradually turn the control knob anti-clockwise to 'HIGH' (Depress the knob slightly to get past the pilot ignition position). The main burner should now light. Depress the control knob slightly to release from the 'HIGH' position and turn back (clockwise) to 'LOW'. While turning, the burner flames should gradually become lower but remain alight. Depress the control knob slightly to release from the 'LOW' position and turn back (clockwise) to the 'Pilot / ignition' position. The main burner should extinguish but the pilot should remain alight. Depress the control knob slightly and turn back (clockwise) to turn OFF.

This will extinguish the pilot.

If the above checks are satisfactory, continue with the installation. If not, check the control and ignition circuitry and components.

# INSTALLER GUIDE

## 10.3 Inlet pressure check.

The appliance is pre-set to give the correct heat input at the inlet pressure shown in section 2 of this manual. No adjustment is necessary.

1. Check the inlet pressure by fitting a pressure gauge at the test point. The test point is on the inlet 'T' connector (See figure 16). Check the pressure with the appliance alight and set at maximum output.
2. After checking, turn off the appliance. Remove the pressure gauge and replace the test point sealing screw.
3. Relight the appliance. Turn to the maximum output position and test around the sealing screw for gas soundness with a suitable leak detection fluid.

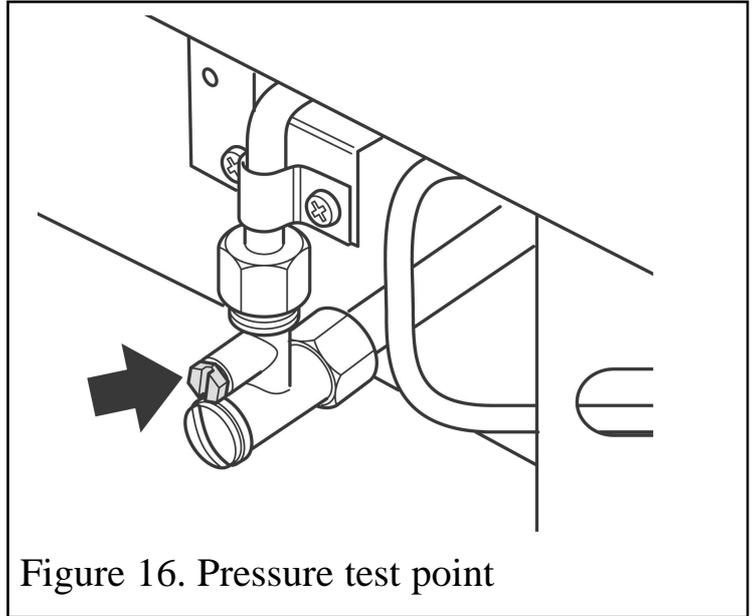


Figure 16. Pressure test point

## 10.4 Fitting the burner tray.

1. Fit the burner tray trim over the front rim of the burner tray. Push the trim fully down (See figure 17).

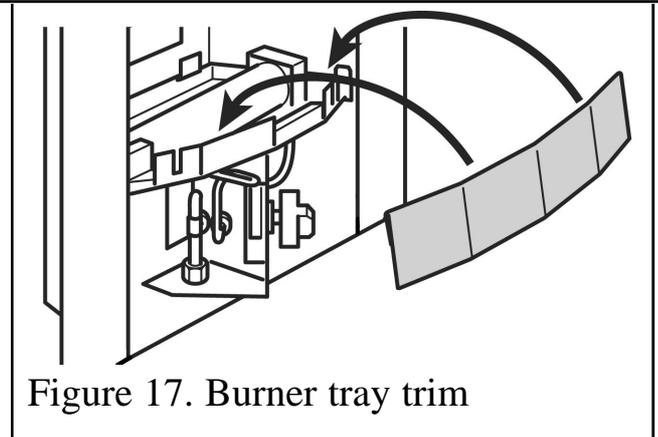


Figure 17. Burner tray trim

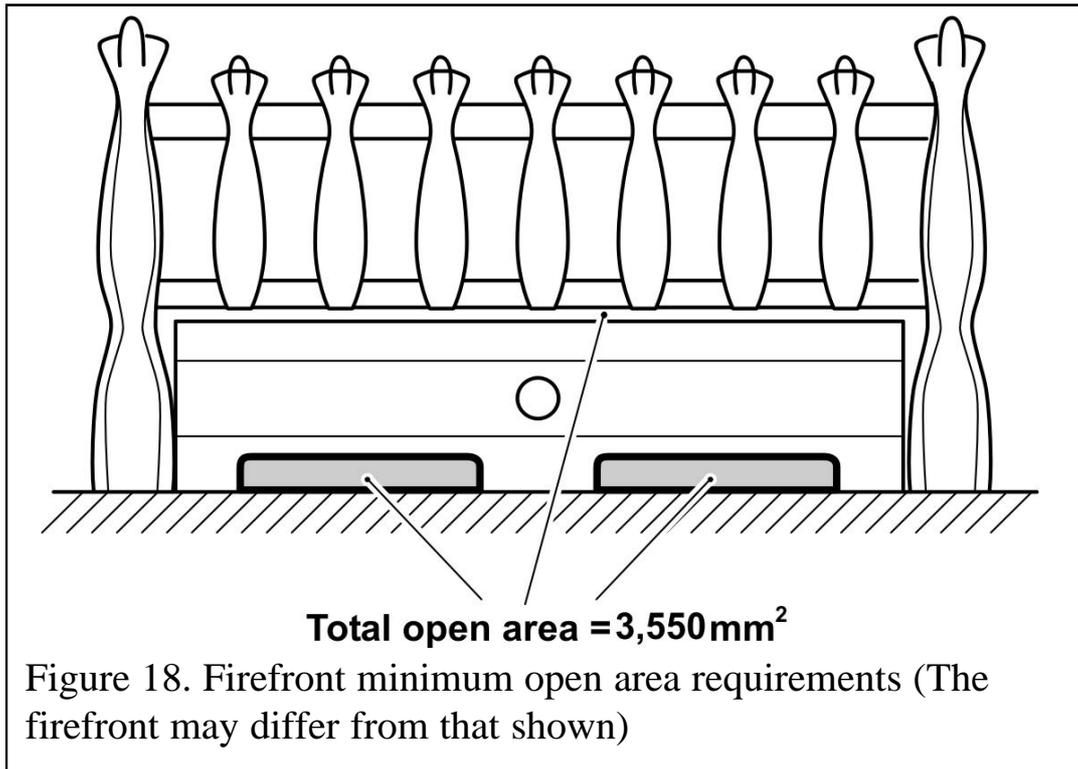
# 11. FITTING THE CERAMIC FUEL EFFECT

The installer and owner guide for the ceramic fuel effect is supplied with the ceramic fuel effect. It is important that the installer and owner guide for the ceramic fuel effect be placed inside or attached to this guide and handed to the customer following completion of the 'final review' section.

# 12. FITTING THE FASCIA

- The installer and owner guide for the fascia is supplied with the fascia and the fascia should be installed in accordance with it.
- A slotted firefront with a **minimum** free area as shown in figure 18 must always be used.

# INSTALLER GUIDE



## 13. FULL OPERATING CHECKS

### 13.1 Check the control settings.

With the ceramic fuel effect in position the control operation must now be fully rechecked. Make sure that the isolating valve at the inlet 'T' connector is open.

- *When first turned on from cold, the flames will appear predominantly blue.*
- *When operating the fire for the first time, some vapours may be given off which could set off smoke alarms in the vicinity. These vapours are quite normal with new appliances. They are totally harmless and will disappear after a few hours use.*

#### 13.1.1 Lighting the burner.

**Before lighting the burner ensure that any protective film has been removed from the fascia.**

1. If closed, open the isolating valve at the inlet 'T' connector.
2. Depress the control knob and rotate it anticlockwise to the 'Pilot / ignition' position. A 'click' will be heard as the integral piezo operates. A spark should be seen between the electrode and pilot tip.
3. Turn the control knob clockwise to the 'OFF' position. Repeat this operation until a flame appears at the pilot. There may be a delay before the pilot lights due to air being purged from the system. When a flame appears at the pilot keep the control knob depressed and hold the pilot ignition position for five seconds. When the control knob is released the pilot flame should remain lit.

# INSTALLER GUIDE

## 13.1.2 Operating the burner.

1. When the pilot burner is operating properly, gradually turn the control knob anti-clockwise to 'HIGH' (Depress the knob slightly to get past the pilot ignition position). The main burner should now light. Depress the control knob slightly to release from the 'HIGH' position and turn back (clockwise) to 'LOW'. While turning, the burner flames should gradually become lower but remain alight. Depress the control knob slightly to release from the 'LOW' position and turn back (clockwise) to the Pilot ignition position. The main burner should extinguish but the pilot should remain alight. Depress the control knob slightly and turn back (clockwise) to turn OFF. This will extinguish the pilot.

If the above checks are satisfactory, continue with the installation. If not, check the control and ignition circuitry and components as described in the servicing section of this guide.

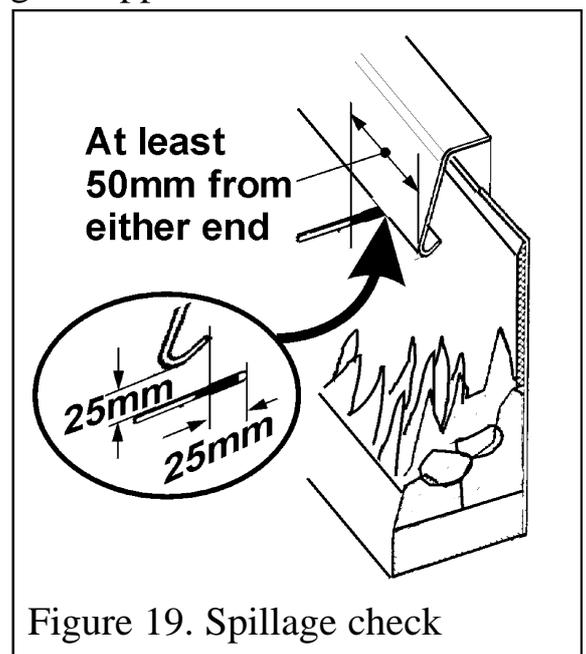
While cooling the ceramic fuel effect may make some crackling noises. This is quite normal.

## 14. SPILLAGE & FLAME SUPERVISION CHECKS

### 14.1 Check for spillage.

**A spillage check must be made before leaving the installed appliance with the customer. Make this with all the ceramic fuel effect pieces and firefront / firefront castings in position.**

1. Close all doors and windows in the room containing the appliance.
2. Light the appliance and turn the control knob to "HIGH".
3. Leave the appliance on for five minutes.
4. Place the smoke match into the appliance canopy (See figure 19).
5. The installation is satisfactory if the smoke is drawn into the appliance. If the smoke is not drawn into the appliance, leave the appliance alight at the maximum setting for a further ten minutes and then repeat the test. If smoke is still not drawn into the appliance, inspect the sealing to the fireplace surround. If the sealing is satisfactory but the appliance is installed with the flue restrictor (See section 8.3), remove the restrictor, reseal the appliance and retest. If smoke is still not drawn into the appliance, **disconnect the**



# INSTALLER GUIDE

**appliance and seek expert advice.**

**6.** If the above test is satisfactory, open all internal connecting doors, hatches, etc., in the room. Keep all doors and windows that open to the outside of the building closed. Recheck for spillage as above. If an extractor fan is installed in the same room as the appliance or a connecting room, check that spillage does not occur with the fan operating and all doors and other openings between the fan and the appliance open. If the smoke is drawn into the appliance, continue with the installation. If the test is not satisfactory, **disconnect the appliance and advise the customer of the cause of failure.**

## **14.2 Flame supervision and spillage monitoring system.**

The pilot unit incorporates a system that will automatically shut off the gas supply if the pilot flame goes out or if there is insufficient oxygen due to spillage or lack of ventilation.

Check that the system operates properly as follows;

- Light the appliance. Set at the “HIGH” position and leave for one minute.
- Turn back to “OFF” to extinguish the pilot. **Note the time when the pilot goes out.**

Listen for a snap sound at the gas tap. **Note the time when the sound is heard.** This sound is caused by an electromagnetic valve shutting off the gas supply through the tap. The valve is located in the body of the tap. The valve should operate **within 60 seconds of the pilot going out.** If the valve does not operate within this time limit do not allow the appliance to be used until the fault has been corrected.

**This monitoring system must not be adjusted, bypassed or put out of operation. This monitoring system, or any of its parts, must only be exchanged using Baxi Fires Division authorised parts.**

## **15. FINAL REVIEW**

- 1.** Visually inspect the appliance. Clean off any marks incurred during installation.
- 2.** Advise the customer how to operate the fire.
- 3.** Explain to the customer that the appliance has a flame failure and spillage monitoring system. Point out the explanation of this system shown in the owner guide. Advise that if the fire goes out for any reason, wait at least three minutes before relighting. Stress that if the monitoring system repeatedly shuts off the fire, the appliance should be switched off and a specialist should be consulted. Point out that the lighting instruction details are on a metal plate attached at the bottom of the appliance.
- 4.** Advise that the fire may give off a slight odour while new. This is quite normal and it will disappear after a short period of use.
- 5.** Advise that any cleaning must only be carried out when the fire is off and cold.
- 6.** Advise the customer that they should read the owner guide before operating the fire and always follow the advice in the section headed “Cleaning your fire”.

## INSTALLER GUIDE

7. Advise the customer that the appliance will operate to its maximum potential if the flue is primed during the first 20 – 30 minutes of use. To do this, simply turn the control to its highest setting. This will also burn off any carbon deposits that may have formed during previous use.

If using the appliance for long periods it is beneficial to change between settings. This will also help to remove any carbon deposits that may form during use.

8. Recommend that the appliance should be serviced and the chimney inspected by a competent person (In the UK a CORGI registered person) at least annually.

If the appliance is in premises in the United Kingdom occupied by a tenant, point out that by law a landlord must have any gas appliance, flue and pipework which is situated in a tenant's premises checked for safety at least every 12 months.

9. Advise the customer that the castings, fascia, firebox and ceramic pieces can be cleaned as described in the owner guide and that the loose ceramic fuel effect pieces must be replaced as described in those instructions.

*Stress that no extra ceramic fuel effect pieces must be added over and above those supplied with the appliance and that any replacements must only be the authorised spares. Warn that ignoring this advice could cause incomplete clearance of the products of combustion with consequent health hazards.*

10. Inform the customer that the serial number for the appliance is located on the plate located behind the firefront / firefront castings and underneath the burner.

11. Hand the literature pack with this guide to the customer.

## 16. SERVICING & PARTS REPLACEMENT

Always turn off the gas supply before commencing any servicing (The appliance inlet "T" connector incorporates an isolating valve).

It is recommended that, at least once a year, the appliance is disconnected and the fireplace opening checked and cleared of any debris.

This product uses fuel effect pieces and a burner compartment rear wall containing Refractory Ceramic Fibres (RCF), which are man-made vitreous silicate fibres. Excessive exposure to these materials may cause irritation to eyes, skin and respiratory tract. Consequently, it is important to take care when handling these articles to ensure that the release of dust is kept to a minimum. To ensure that the release of fibres from these RCF articles is kept to a minimum, during installation and servicing we recommend that you use a HEPA filtered vacuum to remove any dust and soot accumulated in and around the fire before and after working on the fire. When replacing these articles we recommend that the replaced items are not broken up, but are sealed within a heavy duty polythene bag, clearly labelled as RCF waste. This is not classified as "hazardous waste" and may be disposed of at a tipping site licensed for the disposal of industrial waste. Protective clothing is not required when handling these articles, but we recommend

# INSTALLER GUIDE

you follow the normal hygiene rules of not smoking, eating or drinking in the work area and always wash your hands before eating or drinking.

- Check that the appliance is clean and that soot or debris is not blocking the gaps between the ceramic fuel effect pieces causing an imperfect flame.
- Check that soot or debris is not impairing the electrode spark or pilot burner.
- Check that soot or debris is not blocking any of the slots in the main burner.
- After servicing, make sure that the ceramic rear wall is replaced correctly as described in this guide and the ceramic fuel effect pieces are replaced correctly as described in the installer and owner guide supplied with the ceramic fuel effect. The ceramic fuel effect guide may have been placed inside or attached to this guide.
- Always test for gas soundness and spillage after servicing the appliance.

## 16.1 Checking the aeration setting of the burner.

1. The aeration shutter is factory set for use with a **'pebble'** ceramic fuel effect. It is important to ensure that the aeration setting is correct for the ceramic fuel effect used. Check the aeration shutter setting even if fitting the **'pebble'** fuel effect (See figure 20).

2. To adjust the aeration setting to suit the fuel effect used, loosen the two shutter screws, slide the aeration shutter to the desired position and tighten the fixing screws.

## 16.2 To remove the burner unit.

1. Remove the firefront / firefront casting.

2. Remove the loose ceramic fuel effect pieces, the front ceramic fuel effect and the base ceramic fuel effect.

3. Support the inlet 'T' connector to

avoid straining the pipework and disconnect the appliance from the inlet 'T' connector.

4. Detach the burner unit from the convector box by removing two screws (See figure 21).

5. Replace in the reverse order.

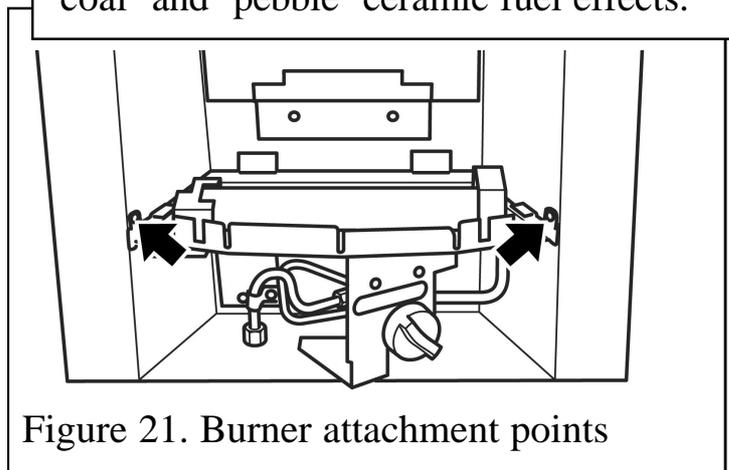
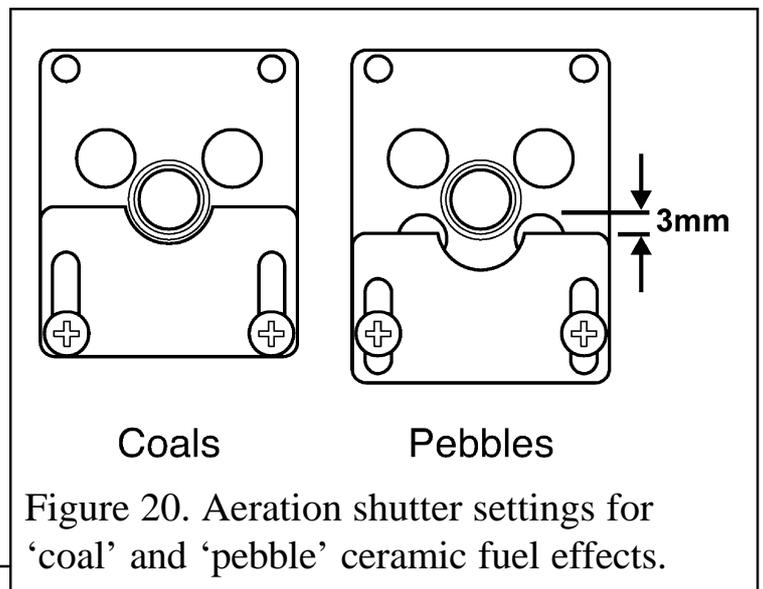


Figure 21. Burner attachment points

# INSTALLER GUIDE

## 16.3 To remove the pilot unit.

1. Remove the burner unit (See section 16.2).
2. If lying the burner on its back, ensure that the work surface is suitably protected. This will avoid damage to the work surface.
3. Detach the pilot pipe from the pilot unit.
4. Detach the thermocouple from the gas valve.
5. Detach the electrode lead from the underside of the electrode tab.
6. Remove the two screws securing the pilot unit (See figure 22).
7. Refit in the reverse order.

*Note:* 1. The pilot unit is an atmosphere sensing device. It must be replaced as a whole assembly. Its individual components are not separately replaceable.

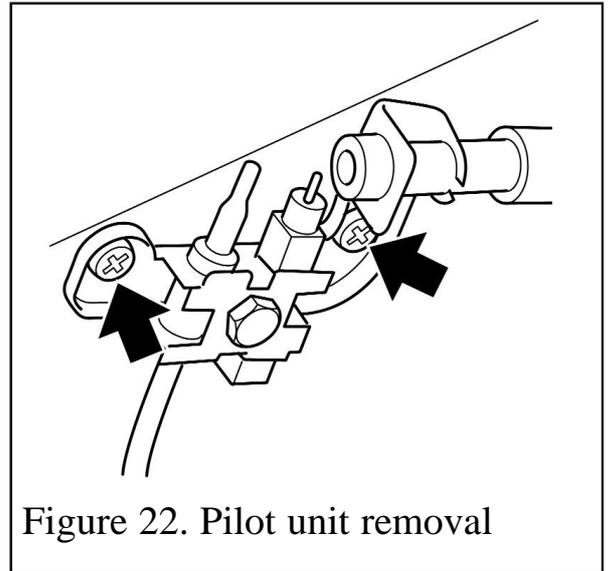


Figure 22. Pilot unit removal

## 16.4 To remove the gas valve.

(See figure 23).

1. Remove the burner unit (See section 16.2).
2. If lying the burner on its back, ensure that the work surface is suitably protected. This will avoid damage to the work surface. Turn the burner unit upside down. Detach the thermocouple from the tap.
3. Detach the pilot pipe from the tap.
4. Detach the inlet pipe.
5. Detach the injector pipe.
6. Detach the electrode lead from the base of the electrode.
7. Remove the control knob by pulling forward.
8. Remove the thermocouple by unscrewing the thermocouple nut at the gas valve.
9. Remove the hexagonal nut securing the gas valve to the mounting bracket.
10. Remove the gas valve.
11. Refit in the reverse order.

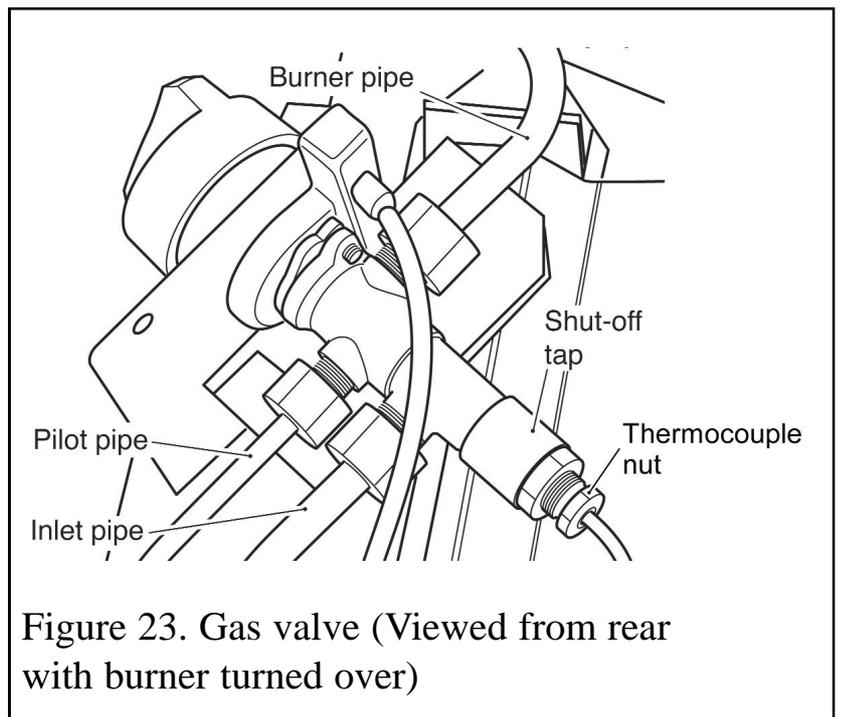


Figure 23. Gas valve (Viewed from rear with burner turned over)

# INSTALLER GUIDE

**16.5 To replace the burner.** (See figure 24).

1. Remove the burner unit (See section 16.2).
2. Support the elbow injector and unscrew the injector nut.
3. Remove the two screws from the burner clamping plate (See figure 24)
4. Lift the right hand side of the burner, slide it to the right and lift clear
5. Refit in reverse order.

**16.6 To remove the main burner injector.**

(See figure 25).

1. Remove the burner (See section 16.5).
2. Remove the burner clamping screw (See figure 25)
3. Unscrew the injector from the burner
4. Refit in the reverse order.

**16.7 To remove the fascia.**

**Important : Before removing the fascia check to see if the foam seal covers the flange on the rear of the fascia. If it does then ensure that a replacement foam seal is available.**

Remove the fascia in the reverse order to that shown in the fascia installer and owner guide. The guide is supplied with the fascia and should be left inside or attached to this guide.

**16.8 To remove the appliance from the fireplace.**

1. Remove the burner unit (See section 16.2).
2. If the fire retention is as method 1 (See section 9.1 of installation instructions), remove the fascia (See section 16.4 ) and then remove the fixing screws. If the fire retention is as method 2 (See section 9.2 of installation instructions), slacken the hexagonal adjusters on the cable retainers and unscrew the thumbscrews to release the cables.
3. Refit as described in the relevant installation sections. Make sure gas soundness, sealing, spillage test and performance are satisfactory.

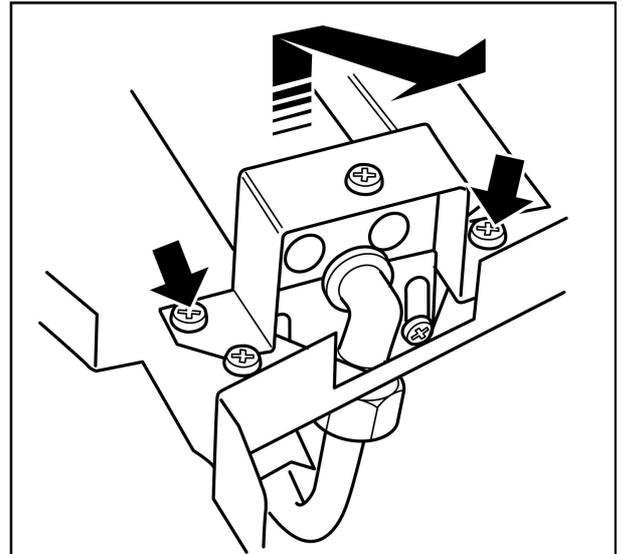


Figure 24. Removal of burner

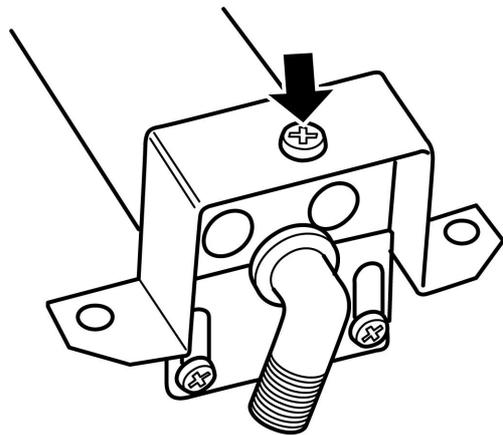


Figure 25. Main burner injector removal